The State of Local Competition 2001

February 2001

The Association for Local Telecommunications Services

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ALTS

DigiComm 2001

Keynote Speakers:

Thomas Casey (CEO, *Global Crossing*)
Neil Gershenfeld (*M.I.T. Media Lab*)
Michael Hatfield (President & CEO, *Calix Networks*)
Jeanette Symons (CTO, *Zhone Technologies*)

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ALTS' Annual Report on the State of the Local Telecom Industry, 2001

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Report Editor: David A. Wolcott

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ALTS *Association for Local Telecommunications Services*

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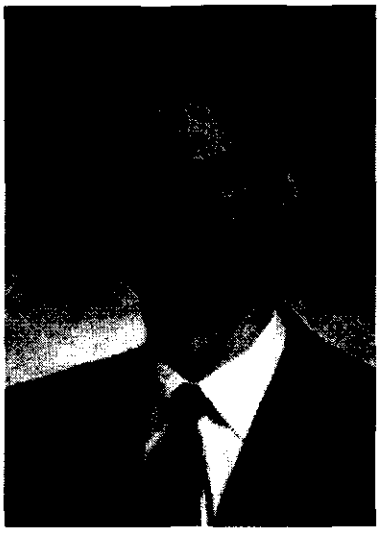
Association for Local Telecommunications Services (ALTS)

ALTS is the leading national industry association whose mission is to promote facilities-based local telecommunications competition. Created in 1987, ALTS is headquartered in Washington, DC and now represents more than 200 companies that build, own, and operate competitive networks – CLECs that are facilities-based. ALTS was founded to harness the shared energy and vitality of the new local competitors and to help ensure that the 1996 Telecom Act is fully implemented and enforced.

Companies Building Digital Futures...

Association for Local Telecommunications Services

ALTS *Association for Local Telecommunications Services*



February 20, 2001

An Open Letter From John Windhausen, Jr.
President, ALTS

Re: **ALTS' ANNUAL MESSAGE ON THE STATE OF COMPETITION IN LOCAL TELECOMMUNICATIONS**

The competitive landscape in local telecommunications has changed dramatically for the better, and consumers are the big winners. For years, telecommunications consumers demanded new high-speed Internet connectivity, responsive customer service, and lower prices. In passing the Telecommunications Act of 1996, Congress answered the call by opening the local telephone market to competition and creating a new breed of telecommunications company, known as CLECs (Competitive Local Exchange Carriers).

Five years after the passage of the Act, the United States has reasserted its position as the world leader in communications and information technology. Our nation's longest economic expansion in history could not have happened as quickly without the faster, cheaper and more efficient technologies built by America's competitive local exchange carriers.

Substantial Evidence That The Act Is Working

Clearly, Congress had the right idea. The emergence of competition in the local telephone marketplace has generated enormous investment in new technologies and consumer services. Consumers are now beginning to enjoy unprecedented access to high-speed, low-cost Internet access services. Today, over one-half of the U.S. can now receive Digital Subscriber Line (DSL) service – the newest and cheapest broadband technology. Schools, small businesses and consumers are already taking advantage of this low-cost technology. Once the remaining barriers to competition are removed, residential consumers will find that high-speed Internet connections and competitive voice services will be as affordable and as easy to install as a telephone.

ALTS has assembled this second Annual Report on the State of Local Competition to document our tremendous progress since 1996. As the Report demonstrates, the competitive telecommunications industry has grown in almost every way imaginable – access lines, miles of new networks constructed, revenues, market share, and customers served. To highlight just one statistic, CLECs now claim over 8% of the local telecommunications market with over 16 million access lines in service.

The new competitive telecom companies have invested massive amounts of capital in new networks that have made access to the Internet faster and more reliable, helping to enable our 'New Economy'. These new local telecom companies have created almost 100,000 high-tech jobs and invested $56 billion in new infrastructure to serve the booming demand for voice and data services.

Challenges to the '96 Act Remain: Threats to Nascent Competition

Notwithstanding the tremendous progress made by CLECs, the competitive industry continues to face enormous challenges. The incumbent telephone companies continue to make it extremely difficult for competitors to interconnect with their networks, despite numerous federal and state orders requiring the ILECs to open their networks to competition. Furthermore, building owners often resist competitors' requests to provide broadband wireless and wireline services to commercial tenants and apartment-dwelling families. Finally, many cities make competitors' lives miserable by imposing enormous franchise fees and onerous regulations that are unnecessary and anti-competitive

Thus, despite our significant growth, competitors remain far behind the behemoth Bell Companies in revenues, customers, and lobbying resources. **The incumbent local exchange companies, the "ILECs", still serve about 92% of the local telephone market.** Rather than compete against each other outside their home territories, the Baby Bells have merged into even larger companies.

In short, while we have made great strides in serving the needs of consumers, we could have done so much more if the marketplace had been fully and irreversibly opened to competition. For these reasons, ALTS will focus in the coming year on opening the local market even further. We will begin by attempting to improve the level of cooperation from incumbent telephone companies, building owners and cities. We will continue to develop stronger ties with the consumers who demand our services and work together to remove the last remaining barriers to competitive service.

Looking Forward

A year from now, I hope to report significant progress on all these fronts. Ultimately, I believe the irresistible force of consumer demand – demand for the fruits of competition in telecommunications – will prevail over monopoly obstruction, which once appeared immovable. Our success in bringing competition to local markets will translate into tremendous benefits for every American and extend our nation's global leadership in telecommunications.

Sincerely,

John Windhausen, Jr.

John Windhausen, Jr.
President
ALTS

2nd Century Comm.
Actel Integrated Comm.
Adelphia Business Solutions
Advanced Radio Telecom
Advanced TelCom Group
Allegiance Telecom
ALLTEL Communications
Arbros Communications
Avista Communications
Birch Telecom
Blackfoot Communications
BroadBand Office
Broadslate Networks
BroadStreet Comm.
Broadwing
Cablevision Systems
Carolina Broadband
Cavalier Telephone
Cbeyond Communications
ChoiceOne Communications
CityNet Telecom
Comcast Telecommunications
Communications Design
Communications Products
CompleTel
Con Edison Communications
Connect Communications
Connect South
Conversent Communications
CoreComm Ltd.
Covad Communications
CTC Communications
DialTek
DSL.net
e.spire
Eagle Communications
Electric Lightwave
En-Touch Systens
FairPoint Communications
FBN Indiana
FiberNet Telecom
Florida Digital Network
Focal Communications
Gabriel Communications
Global NAPs
ICG Telecom Group
Intermedia Communications
IP Communications
KMC Telecom
Local Telephone Data Service
McLeodUSA
Metromedia Fiber Network
Network Access Solutions
Network One
Network Plus
Network Telephone
New Edge Networks
NewSouth Communications
North American Telecom
NorthPoint Communications
OpTel
Pac-West Telecomm
Pae Tec Communications
Penn Telecom
RCN
Reliant Energy HL&P
Rhythms NetConnections
SCC Communications
TalkingNets
TelePacific Communications
Teligent
TESS Communications
Time Warner Telecom
TXU Communications
Universal Access
US LEC
VarTec Telecom
Virtual Hipster Corporation
Western Wireless
Winstar Communications
XO Communications
Yipes Communications
Zama Networks

ABC
Accelerated Networks
Access Lan
Accordion Networks
Adesta Communications
Advanced Fibre Comm.
Advanced Switching (ASC)
Alcatel
Allied Capital
Amber Networks
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Beacon Networks
BizSpace, Inc.
Broadband Gateways
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Calix Networks
Casey, Gentz & Sifuentes
Cathey Hutton & Associates
Cisco Systems
Cole, Raywid & Braverman
COLO.com
Comdisco
CommTech Corporation
CompassRose International
Convergent Networks
Copper Mountain Networks
CopperCom
Coreon, Inc.
Corning, Inc.
Cygent
Daniels & Associates
Davis Wright Tremaine
Dickstein, Shapiro, Morin & Oshinsky
DSET Corporation
Dun & Bradstreet
Dynegy Connect
EDSL Networks, Inc.
Eftia-OSS Solutions, Inc.
Encompass Global Technologies
Ensemble Communications
Fiber Technologies
Fiberworks, Inc.
GE Capital Corp.
General Datacomm, Inc.
Geyser Networks
Henkels & McCoy, Inc.
Hitachi Telecomm (USA), Inc.
Holland & Knight LLP
HyperEdge
iMagicTV
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Innovative Systems
Intertech Management
Jenkens & Gilchrist
Jetstream Communications
John Staurulakis, Inc.
Katz, Kutter, Haigler, Alderman
Kelley Drye & Warren
LeBoeuf, Lamb, Greene & MacRae
Lemay-Yates Associates
LighTrade, Inc.
Linguateq, Inc.
LiveVault Corporation
Lucent Technologies
Lynch Associates
Macrologic, Inc.
Management Recruiters of Stamford
Mandl & Mandl LLP
Marconi Communications
Martin & Associates, Inc.
MaxBill
Mayan Networks
Media Venture Partners
MetaSolv Software, Inc.
NCH Communications
Network Engineering Consultants
Neustar
New Paradigm Resources Group (NPRG)
Nichols & Pena, LLP
NightFire Software
Norris, McLaughlin & Marcus, P.A.
Nortel Networks
Norwest Equity Partners
Nossaman Guthner Knox & Elliot LLP
OAN Services
Occam Networks
O'Keefe Ashenden Lyons & Ward
Parker Poe Adams & Bernstein
Pivotech Systems, Inc.
Pliant Systems, Inc.
Precision Software
PriceWaterhouseCoopers
Quintessant Communications
Ryan, Russell, Ogden & Seltzer
SALIX Technologies
Santera Systems
Schiff Hardin & Waite
Sedona Networks
Siemens ICN
Smith, Gambrell & Russell, LLP
Sonus Networks
Sphera Optical Networks, Inc.
Swidler & Berlin
Syndeo Corporation
Tachion Networks, Inc.
TD Madison & Associates
Technologies Management, Inc.
Tekelec
Telcordia Technologies, Inc.
Telica
Telsource Corporation
The Management Network Group
TollBridge Technologies, Inc.
Trendium, Inc.
TSI
Turnstone Systems
Tyco Electronics Corporation
Verizon
VINA Technologies
Vocal Data, Inc.
Vroom Technologies
Walters & Joyce, P.C.
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Yale Properties USA

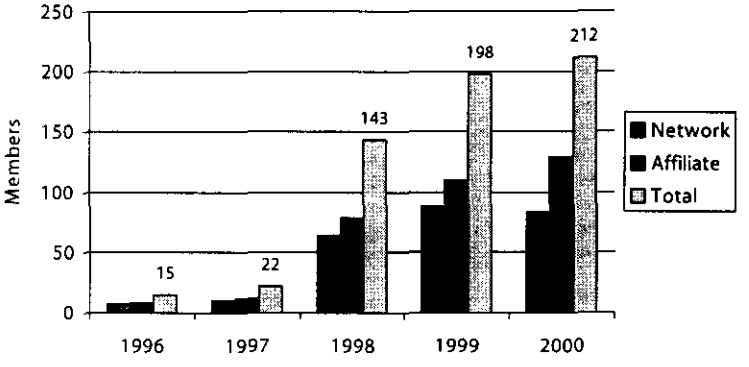
The CLEC Industry:
Metrics & Overview

The Association for Local Telecommunications Services

Companies Building Digital Futures...

ALTS Membership Trends

1996 - 2000



CLEC Industry Metrics

CLEC Access Lines: 16,162,223
Total U.S. Access Lines: 196,000,000
Market Share: 8.2%
Route Miles: 218,445
Buildings Served: 1,146,882
Voice Switches: 991
Data Switches: 2,071
Employees: 94,494

Source: New Paradigm Resources Group (NPRG); Credit Suisse First Boston (CSFB), FCC

Note(s): Facilities and employee data based on 3Q00 company reports. Employee total does not include ALLTEL, AT&T or WorldCom

ALTS' membership 'took off' after the passage of the 1996 Telecom Act. However, CLEC consolidation, bankruptcies and insolvency are likely to cause a drop in ALTS' membership in 2001. ALTS expects membership to rebound in 2002 as the industry matures and as ALTS strengthens its membership outreach.

Five years after the passage of the Act, CLECs now hold over 8% of all local access lines, up from 5.6% one year ago. Network route-miles, the infrastructure upon which the New Economy will depend, have increased from 78,506 in 1997 to over 200,000 miles today. Starting with just 331 data switches in 1997, CLECs now have over 2,000 installed as America enters the digital broadband age. Most notable is the CLEC investment in human capital with CLECs creating almost 100,000 skilled, high-tech jobs.

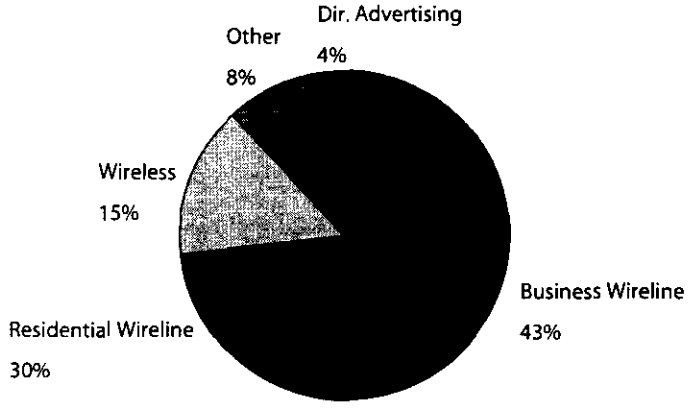
Association for Local Telecommunications Services

ALTS

Companies Building Digital Futures...

U.S. Communications Market

CLEC Addressable Market Opportunity



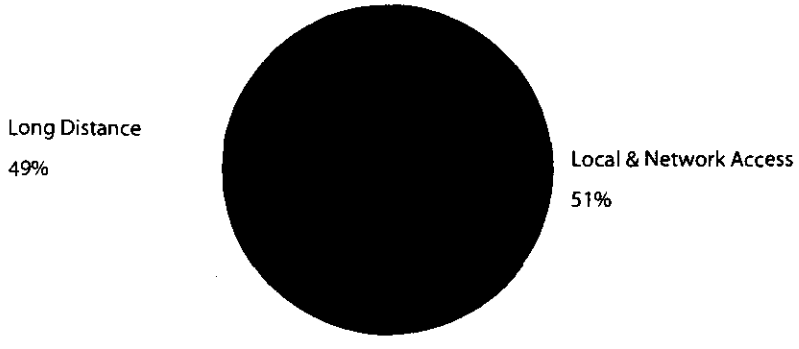
$285 Billion

Source: Bear Stearns

The U.S. communications market has seen remarkable growth since the 1984 divestiture and the passage of the 1996 Act. With the demand for communications more insatiable than ever, the U.S. market has reached a value of $285 billion today. High-volume business customers account for 43% of the market with residential users accounting for 30% of the market. Wireless, also a nascent industry, today accounts for 15% of the market.

U.S. Business Wireline Market

CLEC Addressable Market Opportunity

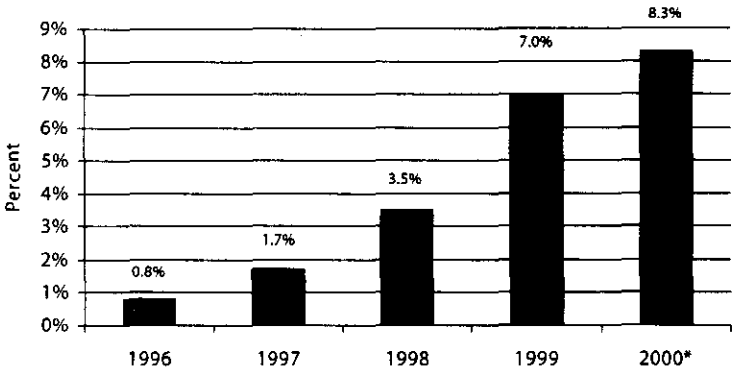


$122 Billion

Source: Bear Stearns

The business wireline market is one of the most attractive markets for many CLECs. To raise capital and build their networks, CLECs must target customers that offer the greatest rate of return. This strategy is consistent with how the Bell system originally erected its network, first to serve highly concentrated areas while letting independent telcos serve the more rural areas. Such high-volume clients enable CLECs to take advantage of geographic concentration and network scalability. As the industry matures, we will see a greater push into residential markets further expanding the benefits of competition.

CLEC Market Share: Revenue

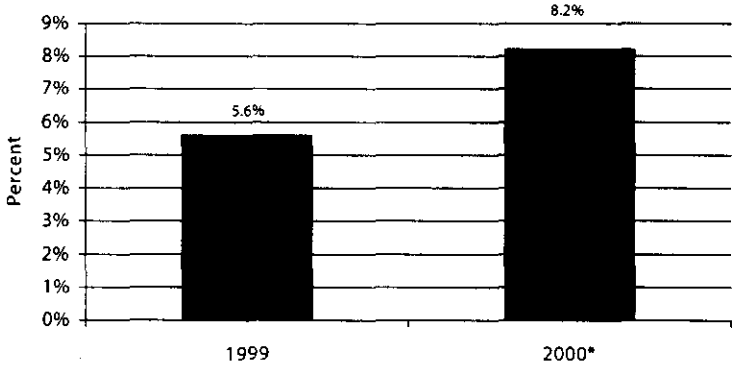


Note: (*) 2000 data based on 3Q00 company reports & 4Q00 estimates.

Source: NPRG, FCC, Bear Stearns

As of the 4Q00, CLECs are estimated to hold 8.3% of the local telecommunications market in terms of revenue. In dollar terms, CLECs posted $39.1 billion in total revenue with $7.5 billion of such revenue derived from switched local access service. Due to the market slowdown, increased bankruptcies and a maturing market, 2000 represents the first year that CLECs will not have doubled their revenue market share.

CLEC Market Share: Access Lines



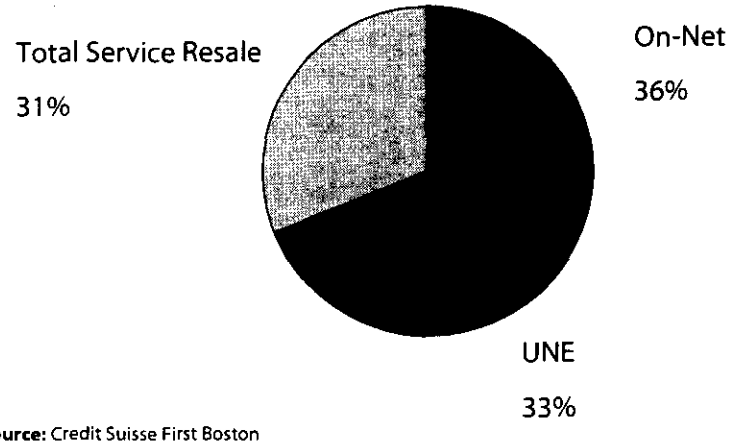
Note: (*) 2000 data based on 3Q00 company reports.

Source: NPRG

As of the 3Q00, CLECs held 8.2% of the local telecommunications market in terms of access lines. If the 2000 trend continues, CLECs can reasonably be expected to hold 9.3% of total access lines as of the 4Q00. In terms of access lines, 2000 also represents the first year that CLECs will not have doubled their market share. This trend is to be expected, however as many larger CLECs experienced financial difficulty in 2000 leading to lower access line growth.

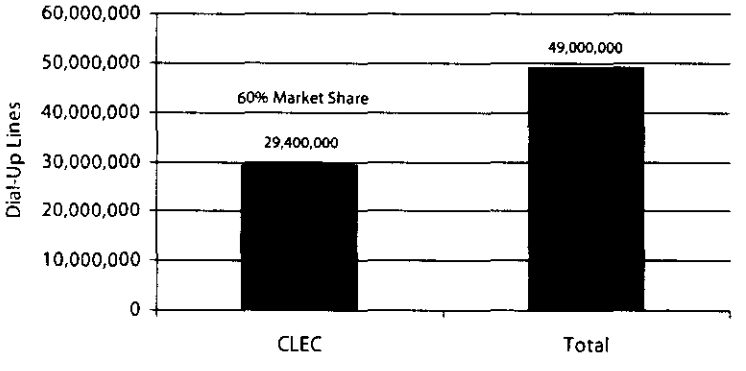
Companies Building Digital Futures...

2Q00 CLEC Line Mix



Source: Credit Suisse First Boston

Internet Dial-Up Lines Served by CLECs



Source: NPRG

Congress envisioned three methods by which carriers could enter the local market, (1) facilities-based entry, (2) unbundled network elements (UNEs), and (3) resale. ALTS represents CLECs that are facilities-based, CLECs that invest in their own facilities or use portions of the ILEC network (UNEs) in conjunction with their own equipment. As seen, carriers utilizing these two entry strategies account for almost 70% of local competition. The amount of resale competition is expected to decline as CLECs continue to build their networks.

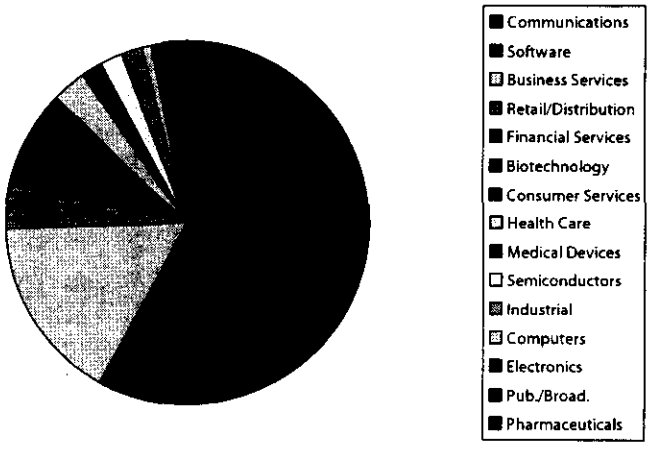
With the passage of the 1996 Act, Internet service providers (ISPs) found an industry group willing and able to supply the growing demand for increased connectivity and modernized facilities. Brad Jenkins, President of JPS.net, the largest ISP in northern California outside San Francisco, notes that without CLEC networks, ISP customers in "rural communities like... Laytonville, Mojave and Yosemite would pay per-minute charges to reach the nearest larger city."

The CLEC Industry:
Capital Formation

The Association for Local Telecommunications Services

Companies Building Digital Futures...

2000 (*Q1-Q3*) Venture Capital Spending by Industry

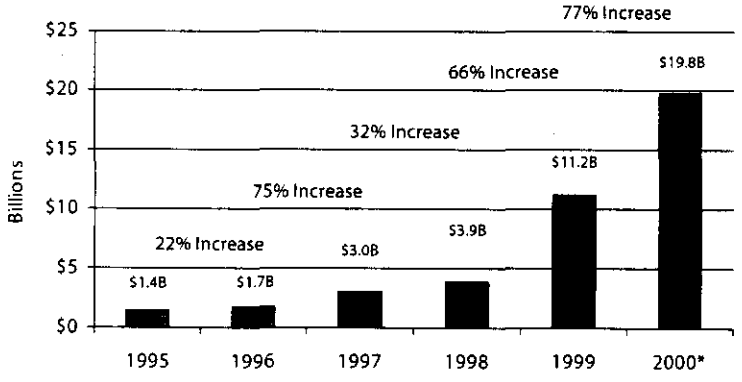


Source: PriceWaterhouseCoopers

Total 2000 (Q1 - Q3) VC Investment: $54.5B

Despite the slowdown in equity markets, investment in communications on the part of venture capitalists continued to grow unabated in 2000. For the first three quarters of 2000, $19.8 billion, or 36%, of the $54.5 billion total venture capital (VC) was directed towards the communications industry. This represents an increase from 30% for the same period in 1999 and an increase from 28% in 1998.

VC Dollars Spent in Communications



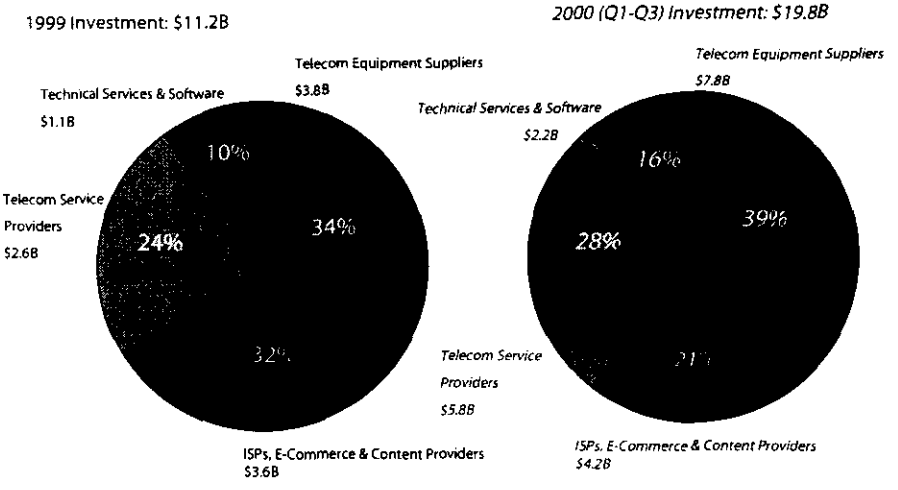
Note: (*) 2000 data represents 1Q00 - 3Q00.

Source: PriceWaterhouseCoopers

With the passage of the 1996 Act, the communications industry saw a massive influx in VC as innovation and entrepreneurialship took hold. With $1.4 billion of VC directed towards the communications industry in 1995, that figure reached almost $20 billion in the first three quarters of 2000 alone. Since 1995, growth rates for communications VC have consistently reached double-digits with the previous two years experiencing growth rates in excess of 50%.

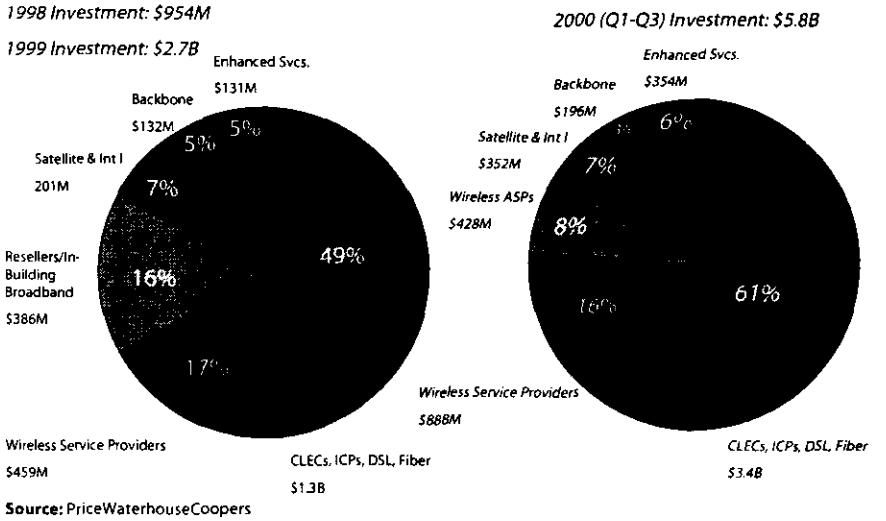
Companies Building Digital Futures...

VC Investments in the Communications Industry



Source: PriceWaterhouseCoopers

VC Investments in Telecom Service Providers



Source: PriceWaterhouseCoopers

For the first three quarters of 2000, $5.8 billion, or 28%, of the $19.8 billion total VC, or 'seed money', in the communications industry was directed at service providers, up from $2.6 billion in 1999. This represents an increase from 24% in 1999. Equipment suppliers, the companies that manufacture the facilities on which competition is built, secured the lion's share of VC investment. Equipment vendors secured $3.8 billion, or 34%, of communications VC in 1999 and $7.8 billion, or 39%, for the first three quarters of 2000. The recent financial problems plaguing CLECs have spread to this crucial sector as well with Barron's noting that "the elephant in the room that now threatens to bring down the economy is the telecommunications industry".

Companies competing for the local market led telecommunications service providers in VC investments. In the first three quarters of 2000, CLECs, ICPs, DSL and fiber companies received $3.4 billion, or 61%, of total service provider VC.

Companies Building Digital Futures...

Top 2000* VC Investments in the CLEC** Sector

Company	Service	Amount ($M)
Carolina Broadband *(Charlotte, NC)*	ICP	$409
Looking Glass Networks *(Oak Brook Terr., IL)*	Fiber optic network	$236
Velo.com *(Englewood, CA)*	Fixed local wireless	$234
Yipes *(San Francisco, CA)*	Fiber optic network	$217
NT Corporation *(Pensacola, FL)*	DLEC-DSL	$213
Cogent *(Washington, DC)*	All-optical network	$206
Formus Communications *(Reston, VA)*	Local broadband wireless	$175
Global Metro Networks *(Silver Spring, MD)*	Metro dark fiber networks	$155
Broadview Networks *(New York, NY)*	ICP	$150
KNOLOGY *West Point, GA)*	ICP	$150
Darwin Networks *(Louisville, KY)*	DLEC-DSL	$121
Grande Communications *(Austin, TX)*	ICP	$109
Aerie Networks *(Denver, CO)*	Broadband fiber optic	$105
@Link Holdings *(Louisville, CO)*	DLEC-DSL	$101
CityNet Corp. *(Silver Spring, MD)*	Broadband Wholesaler, CLEC	$100
airBand Communications *(Addison, TX)*	High-speed Broadband	$ 90
Flashcom *(Huntington Beach, CA)*	DLEC-DSL	$ 84
2nd Century *(Arlington, VA)*	ICP	$ 77
Digital Broadband *(Waltham, MA)*	DLEC-DSL	$ 75
TriVergent *(Greenville, SC)*	ICP-DSL	$ 67
STSN *(Salt Lake City, UT)*	Hotel In-Building Broadband	$ 65
New Edge Networks *(Vancouver, WA)*	DLEC-DSL	$ 63
Urban Media *(Palo Alto, CA)*	In-Building Broadband	$ 59
Net Rail *(Atlanta, GA)*	Internet Backbone Provider	$ 55
InternetConnect *(Torrance, CA)*	ISP-DSL	$ 53
Maverix.net *(Chicago, IL)*	DLEC-DSL	$ 43
BlueStar *(Nashville, TN)*	DLEC-DSL	$ 34
Total		**$3.4B**

Notes: (*) 2000 data represents 1Q00 - 3Q00. (**) includes CLECs, ICP, DSL & fiber.

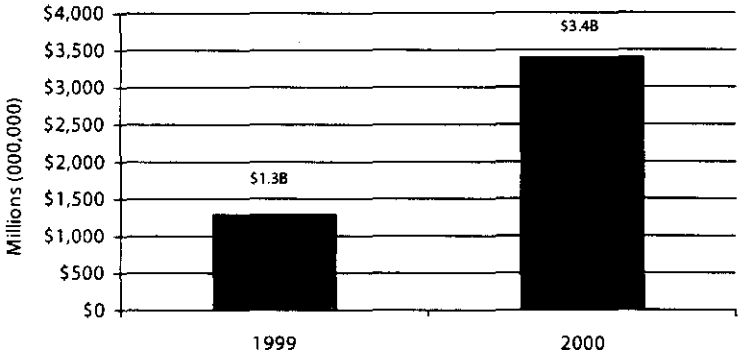
Source: PriceWaterhouseCoopers

While many of the capital markets were virtually closed to the CLEC industry, the VC segment continued to invest large amounts of capital in the CLEC sector. VC provides the critical seed money for new competitors to secure their first rounds of financing. As companies mature, much of the sources of funding shifts to the equity markets and strategic and institutional investors. In 2000, seizing the opportunity created by the overwhelming demand for broadband connectivity, VC investment flowed heavily into data and broadband providers. A total of $3.4 billion was poured into the CLEC, ICP, DSL and fiber industries. Of the top VC investments noted, 8 were directed at ALTS members: Carolina Broadband, Yipes Communications, CityNet Corp., 2nd Century Communications, Digital Broadband Communications, TriVergent (Gabriel Communications), New Edge Networks and Bluestar (Covad). Digital Broadband recently filed for Chapter 11 bankruptcy.

Companies Building Digital Futures...

Venture Capital Investments in the CLEC Sector*

*1999 vs 2000***



Notes: (*) includes CLECs, ICP, DSL & fiber. (**) 2000 data represents 1Q00 - 3Q00.

Source: PriceWaterhouseCoopers

As noted, the CLEC sector saw an increase in VC funding from $1.3 billion in 1999 to $3.4 billion for the first three quarters of 2000. This funding provides crucial cash to sustain and expand operations in such a capital-intensive market. Seeking to build networks that span all across the country, CLECs use this funding to compete for customers with the incumbents that begin with 100% market share.

Select Strategic Investments in the CLEC Sector

Date	Company	Investor	Amount ($M)
January 2000	Digex (Intermedia)	Compaq	$50
January 2000	Digex (Intermedia)	Microsoft	$50
January 2000	Intermedia	KKR	$200
February 2000	US LEC	Bain Capital, Thomas Lee Partners	$300
March 2000	CTC Communications	Bain Capital, Thomas Lee Partners, CSFB	$300
March 2000	CAIS Internet	3COM	$20
May 2000	CAIS Internet	Microsoft	$40
May 2000	XO Communications	Forstmann Little	$400
November 2000	Winstar	Microsoft, CPQ Holdings, CSFB & WCAS	$270
Total			***$1.63B***

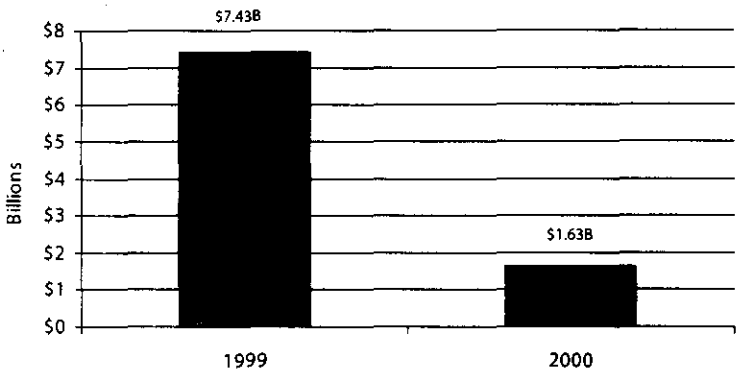
Source: Morgan Stanley Dean Witter

For the year-end 2000, the CLEC industry saw a marked decrease in strategic investments, or private funding. Morgan Stanley Dean Witter values the top investments in CLECs, or their subsidiaries, at $1.63 billion. Of the investments noted, 5 were directed at ALTS network members, (1) Intermedia, (2) US LEC, (3) CTC Communications, (4) XO Communications (*formerly NEXTLINK*), and (5) Winstar.

Companies Building Digital Futures...

Select Strategic Investments in the CLEC Sector

1999 vs 2000



Source: Morgan Stanley Dean Witter

As noted, the CLEC sector saw a marked decrease in strategic investments as this sector of the capital markets was virtually off-limits to CLECs. At year end 1999, CLECs secured $7.43 billion in strategic investments. In 2000, with financial markets souring and private investors shutting their doors, investment dropped to $1.63 billion.

Merger & Acquisition Activity in the CLEC Sector

Date	Acquirer	Target	Firm Value ($B)
January 2000	XO Communications	Concentric Networks	$2.217
February 2000	Global Crossing	Ixnet	$3.672
February 2000	Global Crossing	IPC	$2.865
April 2000	McLeodUSA	Splitrock	$1.826
April 2000	CoreComm	ATX	$ .900
April 2000	Time Warner Telecom	GST	$ .690
April 2000	Advanced Radio Telecom	Broadstream	$ .365
April 2000	Mpower	Primary Network	$ .145
May 2000	Choice One	US XChange	$ .515
June 2000	Covad	Bluestar	$ .202
June 2000	Gabriel *(equal merger)*	TriVergent	
September 2000	WorldCom	Intermedia	$5.509
October 2000	McLeodUSA	CapRock	$ .532
December 2000	Hughes	Telocity	$ .180
Total			***$19.618B***

Note: Date indicates month that transaction was announced. Not all transactions have been completed.

Source: Morgan Stanley Dean Witter

Seeking to cover the broadest possible service area and to combine capital resources, a number of CLECs merged or were acquired in 2000. Of the transactions noted, 14 were ALTS members at the time of the announcement, (1) XO Communications, (2) McLeodUSA, (3) CoreComm, (4) Time Warner Telecom, (5) GST, (6) Advanced Radio Telecom, (7) Mpower, (8) Choice One, (9) US XChange, (10) Intermedia, (11) Gabriel, (12) TriVergent, (13) Covad, and (14) Bluestar.

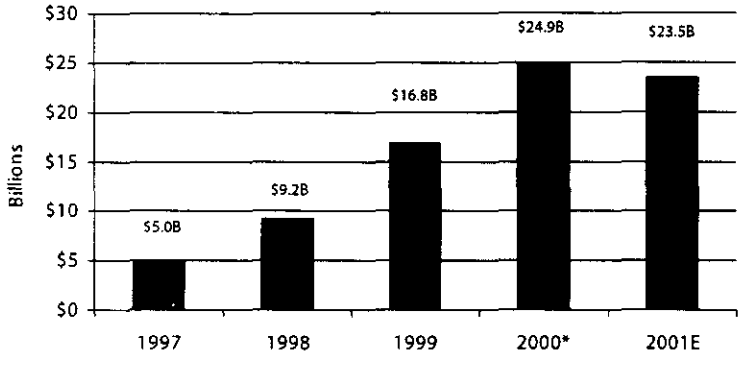
The CLEC Industry:
Facilities, Labor & Revenue

The Association for Local Telecommunications Services

Companies Building Digital Futures...

Annual CLEC Capital Expenditures

$56 Billion Since 1997



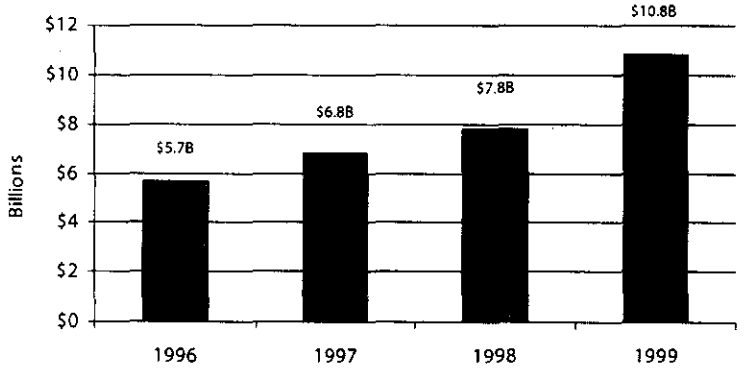
Note: (*) Actual data through 3Q00 and projected 4Q00 expenditures.

Source: Paine Webber, NPRG

CLECs are in a highly capital-intensive industry. One measurement of CLECs' commitment to building new networks is their level of capital expenditures. Since 1997, CLECs have invested $56 billion in infrastructure that will carry the next generation of communications. With the current market uncertainty, analysts expect capital expenditures to level off in 2001.

Cable Industry Capital Expenditures

1996 - 1999



Source: National Cable Television Association (NCTA)

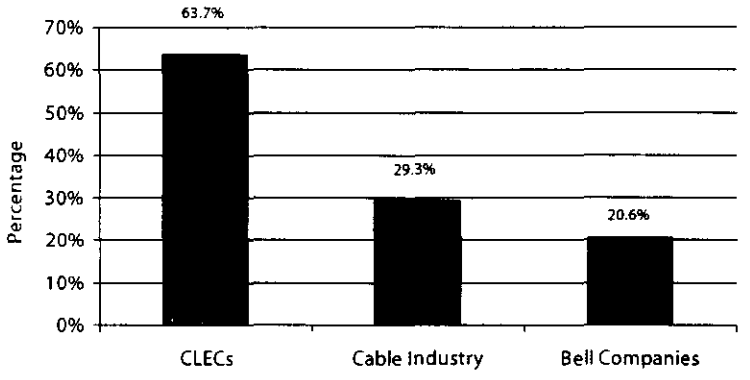
When comparing the CLEC and cable industries for the years 1997 - 1999, CLECs outpaced cable in capital expenditures each of the last two years on record. CLECs outpaced cable industry capital expenditures by $1.4 billion in 1998 and $6 billion in 1999. With both industries competing for many of the same voice and data customers, the intense rivalry has contributed to the rapid growth of high-speed broadband Internet access in the United States.

Association for Local Telecommunications Services

ALTS

Companies Building Digital Futures...

Capital Expenditures as a Percentage of Revenues

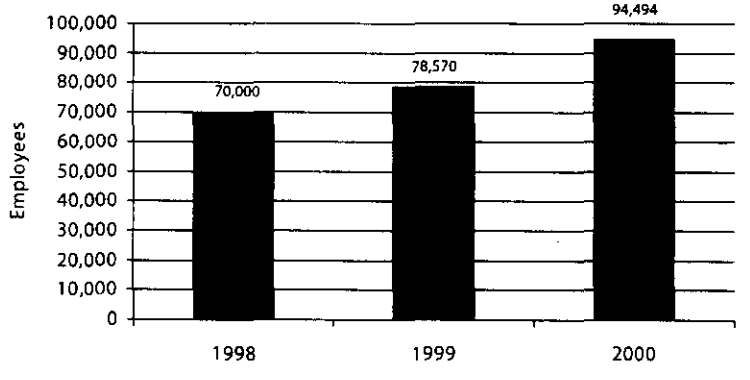


Notes: Cable industry data represents 1999 data. CLECs and Bell Companies represents 2000 data.

Source: NPRG, NCTA, company reports

In comparison to the cable industry and the Bell Companies, CLECs reinvest a much larger portion of their revenues back into facilities (e.g. capital expenditures). In 2000, CLECs invested almost 64% of their revenues in capital expenditures. For the same period, the Bell Companies invested 21% with the cable industry investing 30% in 1999. Total capital expenditures were valued at $24.9 billion for CLECs (2000), $10.2 billion for the cable industry (1999) and $33.6 billion for the Bell Companies (2000).

CLEC Employees



Note: Employee totals do not include AT&T, WorldCom or ALLTEL.

Source: NPRG, Merrill Lynch

The growth in the CLEC industry has led to new, high-value jobs in the communities in which they invest and compete. The competitive industry has grown from a negligible employee base to almost 100,000 employees today. However, with the recent downturn in the equity markets and with investor sentiment towards CLECs at historic lows, many companies have announced sharp cutbacks in staffing levels as they attempt to conserve cash to continue operations through more challenging financial times.

Public CLECs

Market Cap & 52 Week Performance

Company	Market Cap ($M)	52 Week Change	Ticker Symbol
Adelphia Business Solutions	$480.7	-86.30%	ABIZ
Advanced Radio Telecom	$89.7	-94.10%	ARTT
Allegiance Telecom	$2,130	-77.50%	ALGX
Allied Riser	$157.6	-89.50%	ARCC
ChoiceOne Communications	$504.7	-61.60%	CWON
Convergent Communications	$30.6	-89.00%	CONV
CoreComm Ltd.	$135	-94.40%	COMM
Covad Communications	$3449	-94.90%	COVD
CTC Communications	$300.7	-68.00%	CPTL
Cypress Communications	$53	-95.00%	CYCO
DSL.net	$132	-93.40%	DSLN
e.spire Communications	$54.8	-92.40%	ESPI
Electric Lightwave	$212.4	-79.70%	ELIX
FiberNet Telecom Group	$137.7	-75.80%	FTGX
Focal Communications	$932.3	-65.20%	FCOM
General Communications	$390.0	+16.10%	GNCMA
ICG**	$16	-98.00%	ICGX
Intermedia	$855.1	-76.10%	ICIX
ITC^DeltaCom	$427.2	-80.10%	ITCD
Log On America	$15.1	-91.30%	LOAX
McLeodUSA	$7,946	-52.40%	MCLD
Mpower Communications	$327.8	-85.90%	MPWR
Net2000 Communications	$98.5	-63.29%*	NTKK
Network Access Solutions	$71	-95.10%	NASC
Network Plus	$324.6	-85.10%	NPLS
NorthPoint Communications**	$79	-98.00%	NPNT
NTELOS	$269.2	-46.50%	NTLO
Pac-West Telecom	$169.6	-83.50%	PACW
RCN	$756.8	-86.00%	RCNC
Rhythms NetConnections	$94.5	-97.00%	RTHM
Teligent	$115.4	-97.70%	TGNT
Time Warner Telecom	$6,713	-06.70%	TWTC
US LEC	$228.3	-77.00%	CLEC
USOL Holdings	$23.3	-78.90%	USOL
Winstar	$1,173	-73.50%	WCII
XO Communications	$6,354	-66.90%	XOXO
Market Cap	**$32.14 billion**		

Note(s): as of mid-day 2.20.01 unless noted otherwise; includes providers that operated primarily as a CLEC and derive a significant portion of revenues from CLEC services. For example, AT&T (T), ALLTEL (AT), Level 3 (LVLT), Metromedia Fiber Network (MFNX) and WorldCom (WCOM) were excluded; (*) reflects 6-month change; (**) as of 11.30.00

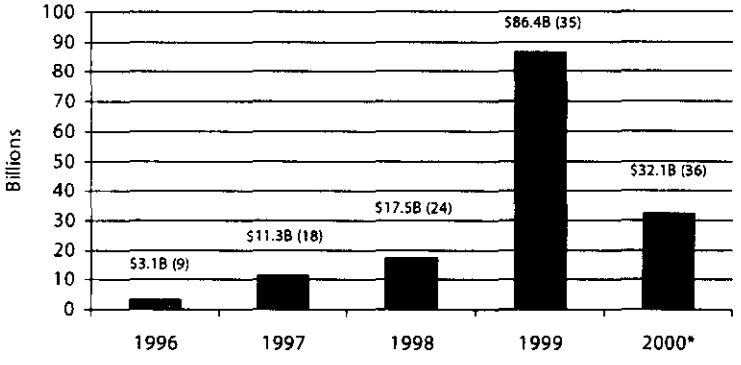
Sources: WSJ.com, MSNBC.com, NPRG, Morgan Stanley Dean Witter

In 1999, there were 35 public CLECs. In 2001, there are 36 publicly listed CLECs. With the equity markets virtually closed to the CLEC industry, few CLECs successfully went public in 2000. In addition, many of the companies noted are in danger of being delisted or are currently in Chapter 11 proceedings. Of the public CLECs, only one saw a positive 52-week change, General Communications of Alaska. A majority (33 of 36) saw their equity values fall over 50% in the previous 52-weeks.

In addition to the companies noted, the following CLECs have parent companies that are publicly traded: ALLTEL (AT), Avana Communications (GCDV), Black Hills FiberCom (BKH), Cablevision Lightpath (CVC), Comcast Communications (CMCSK), Conectiv Communications (CIV), Cox Communications (COX), CTC Exchange Services (CTCI), CTSI (CTCO), HickoryTech (HTCO), MH Lightnet-Comcast (CMCSA), NEON Optica (NOPT), SBC Telecom (SBC), TDS Metrocom (TDS) and Vitts (SFE).

Companies Building Digital Futures...

Market Capitalization

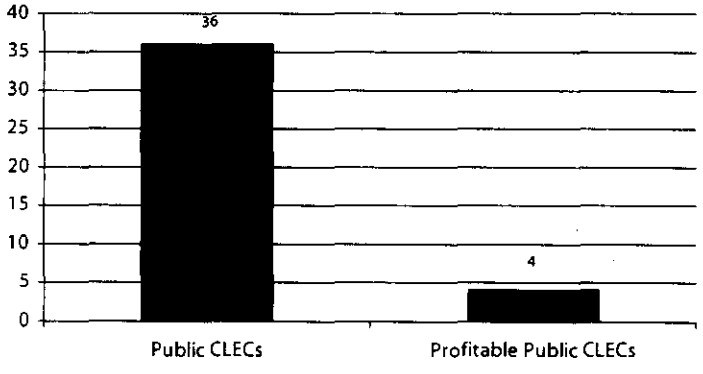


Note(s): (*) as of mid-day 2.20.01; includes providers that operated primarily as a CLEC and derive a significant portion of revenues from CLEC services. For example, AT&T (T), ALLTEL (AT), Level 3 (LVLT), Metromedia Fiber Network (MFNX) and WorldCom (WCOM) were excluded. Number of public CLECs in parentheses.

Source: WSJ.com, MSNBC.com, NPRG, Morgan Stanley Dean Witter, ALTS

Due to the steep fall in CLEC equity values, total CLEC market capitalization fell over 50%, from $86 billion in 1999 to $32 billion as of February 2000. The number of public CLECs saw an increase from 9 in 1996 ($3.1 billion market cap) to 36 in 2000. The total 2000 market cap escaped an even steeper drop due to the less severe decline in some of the first-tier CLECs which comprise a larger portion of total CLEC market capitalization.

CLECs Earning A Profit



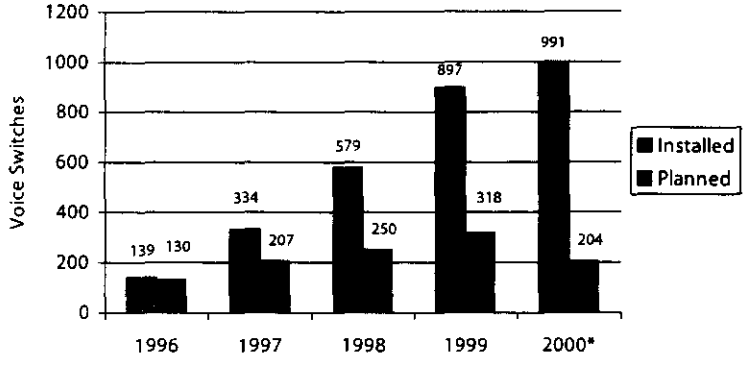
Note: Profitability defined as a positive net profit margin.

Source: WSJ.com, MSNBC.com, NPRG, Morgan Stanley Dean Witter, ALTS

Exemplifying the capital intensive nature of local telecommunications, five years after the passage of The Act, only 4 of the public CLECs are profitable (defined as a positive net profit margin). In 1999, only 1 public CLEC was profitable and prior to 1999, no public CLECs were profitable. The four CLECs in question are Intermedia Communications, NTELOS, Pac-West Telecomm & Time Warner Telecom.

Companies Building Digital Futures...

Voice Switches:
Installed & Planned

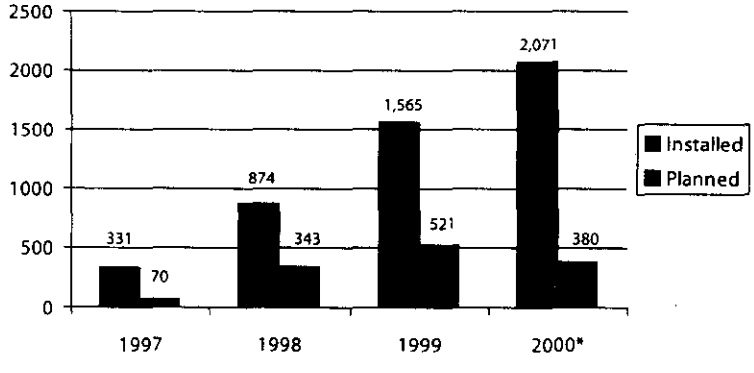


Note: (*) 2000 data through 3Q00.

Source: NPRG

The most basic level of the network is the switch, the piece of equipment that selects the appropriate path for the transmission of a telecommunications signal. CLECs have been rapidly installing these crucial facilities and have almost 1,000 voice switches in operation as of the 3Q00. However, with many companies experiencing scaled back operations amid financial difficulties, planned switches experienced its first decrease since the passage of the Act.

Data Switches:
Installed & Planned



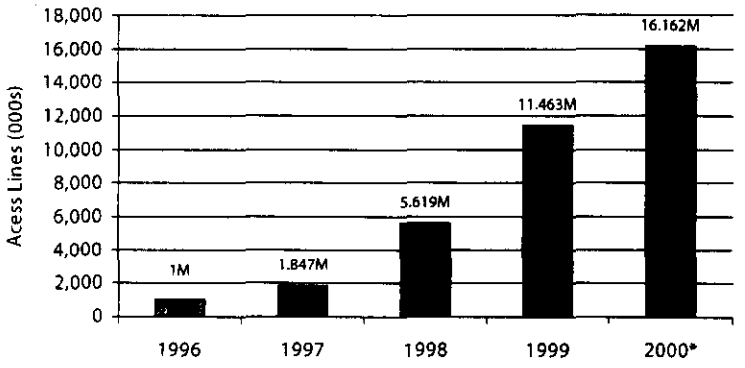
Note: (*) 2000 data through 3Q00.

Source: NPRG

Fueled by the demand for broadband connectivity, data switches have seen an even faster deployment rate than traditional voice switches. In an effort to meet the soaring demand for broadband services, CLECs now have over 2,000 such switches in place. However, again due to scaled back network expansion, planned data switches also experienced its first drop in 2000.

Companies Building Digital Futures...

CLEC Access Line Growth

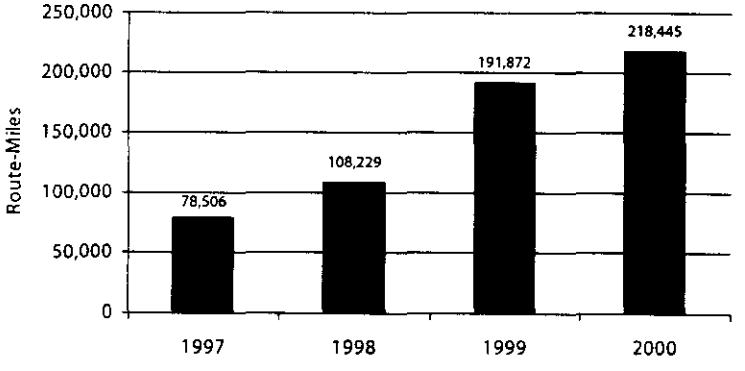


Note: (*) 2000 data through 3Q00.

Source: ALTS, NPRG

One of the most critical measures of competition in the local loop is the number of access lines served by CLECs. With just one million CLEC lines in service in 1996, CLECs now serve over 16 million access lines. This represents over 8% of all access lines in the United States. According to the FCC, CLEC market share in individual states exceeds the national average in Illinois (9%), Iowa (9%), Louisiana (11%), Kansas (16%) and New York (16%). Nationally, because only carriers with more than 10,000 access lines in service must report, the FCC estimates CLEC market share at 6.7% as of 2Q00.

Network Route-Miles



Source: NPRG

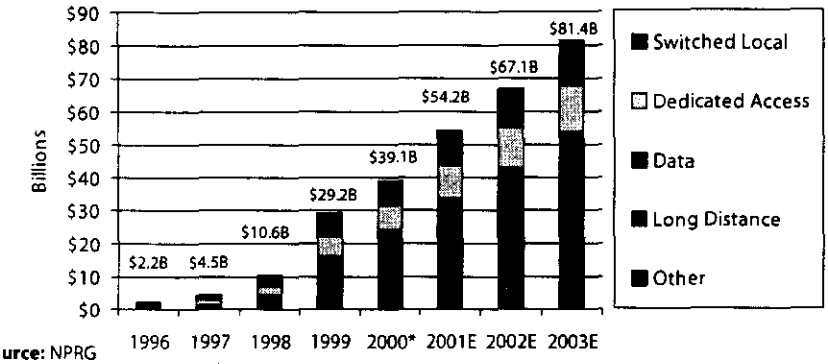
To transmit the massive amounts of voice and data traffic generated by consumers, CLECs have been aggressively building out local and long-haul networks. A large portion of the $56 billion in capital expenditures has been invested in erecting such networks. Since 1997, CLECs have almost tripled their route-miles in service. These high-speed, state-of-the-art networks carry the next generation of voice and data traffic.

Association for Local Telecommunications Services

ALTS

Companies Building Digital Futures...

Total CLEC Revenue Growth

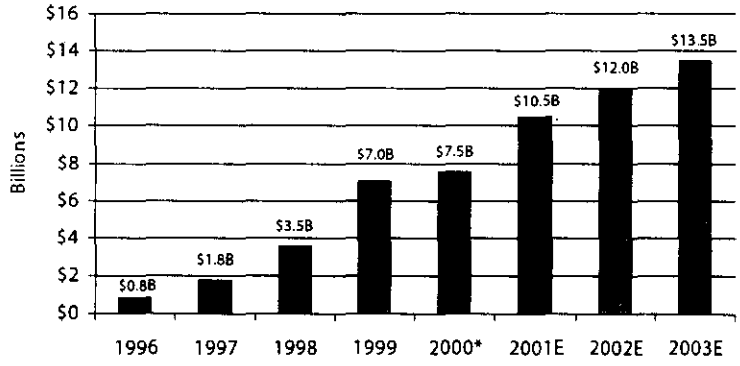


Source: NPRG

Note: (*) 2000 data through 3Q00 with 4Q00 projections. Switched Local Service & Long Distance Service include resale revenues. Data includes all data and data-Related services (e.g. Frame Relay, ATM, DSL, etc.). Other includes miscellaneous revenues (e.g. reciprocal compensation) as well as non-telecom related revenue (e.g., network development).

In 2000, CLECs are expected to report $39.1 billion in revenue, up from $2.2 billion in 1996. While this represents a marked increase over 1999, 2000 will mark the first time in the industry's history that CLECs did not double revenues over the previous year. Analysts predict, however, that as consolidation takes hold and the local market matures, revenues will continue to grow at a rapid, albeit somewhat reduced, rate. Of the various categories of revenue, data services represented the largest and strongest growth area as the demand for high-speed broadband services continues to grow unabated.

Switched Local Access Revenue Growth



Source: NPRG

Note(s): (*) 2000 date through 3Q00 with 4Q00 projections. Includes resale revenues.

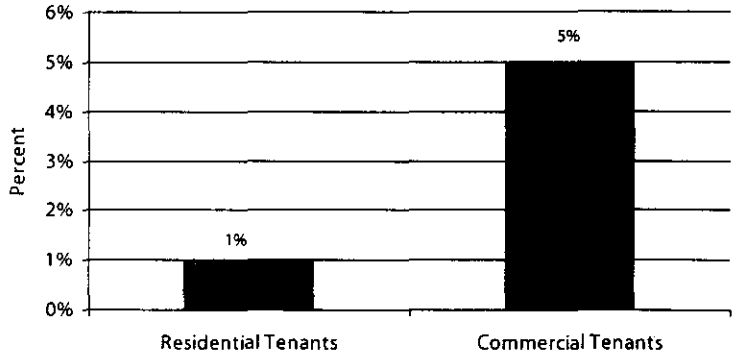
While CLECs doubled revenues between 1998 and 1999 in switched local access services, this area saw a leveling off in 2000 as uncertainty entered the marketplace. However, analysts expect local access revenues to rebound in 2001.

The CLEC Industry:
Building Access

The Association for Local Telecommunications Services

Companies Building Digital Futures...

Multi-Tenant Unit (MTUs) Occupants with Access to Competitive Telecom Services



Source: Smart Buildings Policy Project

The Smart Buildings Policy Project (SBPP) was launched by ALTS on June 21, 2000 by 20 leading telecommunications providers and consumer organizations in an effort to eliminate barriers to building access and promote advanced broadband services to millions of American consumers. The SBPP is committed to insuring reasonable and nondiscriminatory access to rooftops and inside wiring in multi-tenant environments (MTEs). The SBPP believes that the absence of federal rules governing access to MTEs permits building owners to exert considerable control over the development of facilities-based competition. By denying competitive carriers access to the space necessary for the equipment required to provision facilities-based telecommunications and broadband services, building owners violate the letter and the spirit of the Telecommunications Act of 1996.

The SBPP is a growing coalition of telecommunications carriers, equipment manufacturers and trade organizations that includes: Alcatel, the Association for Local Telecommunications Services (ALTS), AT&T, the Commercial Internet eXchange Association (CIX), the Competition Policy Institute (CPI), the Competitive Telecommunications Association (CompTel), Digital Microwave Corporation, Focal Communications, The Harris Corporation, Highspeed.com, the Information Technology Association of America (ITAA), the International Communications Association (ICA), Lucent Technologies, NEXTLINK Communications, Nokia, P-Com, Siemens, the Telecommunications Industry Association (TIA), Teligent, Time Warner Telecom, Winstar Communications, Wireless Communications Association (WCA) and WorldCom.

The SBPP may be found on-line at www.buildingconnections.org.

Sources (sidebar): SBPP; Fortune Magazine

Despite the enormous inroads made by CLECs, building owners often refuse to offer carriers nondiscriminatory access to tenants in MTUs. Despite tenant requests, building owners continue to deny tenants choice in local telecommunications and high-speed Internet access service. With consumers beholden to the wishes of their landlords, millions of consumers stand to miss out on the new technologies being brought to market.

One-third of Americans live in apartment buildings.

The vast majority of small and medium sized businesses are located in America's 760,000 commercial buildings.

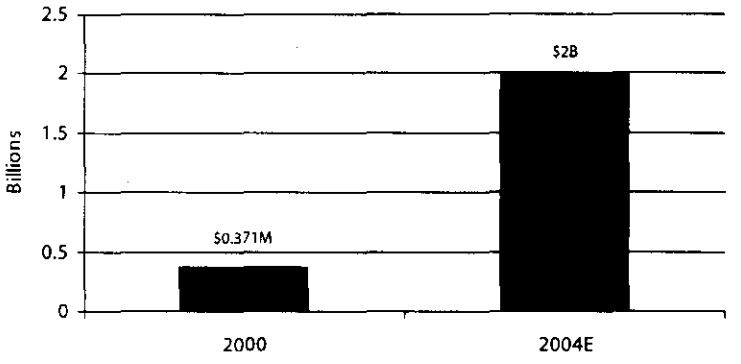
Only 20% of the 6.5 million small businesses in the United States are on line, whether through a dial-up or broadband connection.

Most wireline competitive local exchange carriers (CLECs) are connected to 10,000 or fewer buildings.

Only 5% percent of commercial tenants, and less than 1% of residential tenants, have access to competitive telecommunications services.

Companies Building Digital Futures...

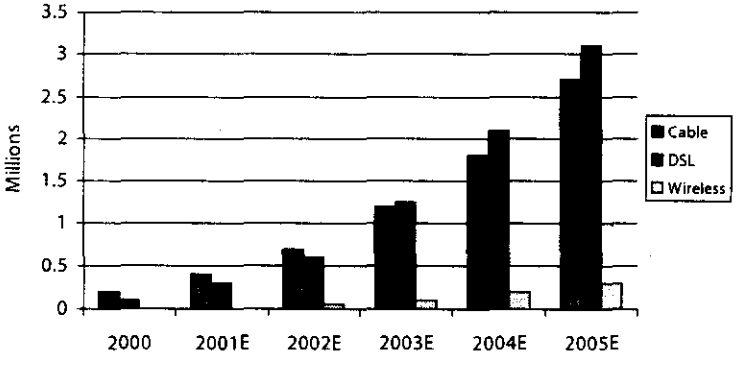
U.S. Multi-Tenant Broadband Equipment Market



Source: Cahners In-Stat Group

With consumers demanding high-speed broadband connections, the multi-tenant broadband equipment market is predicted to grow from just $371 million in 2000 to $2 billion in 2004. However, with the downturn in the CLEC industry, even the equipment suppliers and manufacturers, who rely heavily on CLEC demand, have not escaped the slowdown in 2000. For the 12 months ending 2.15.01, the stock value of Cisco (CSCO) has dropped 51% while the stock value of Lucent (LU) has dropped 73.8%.

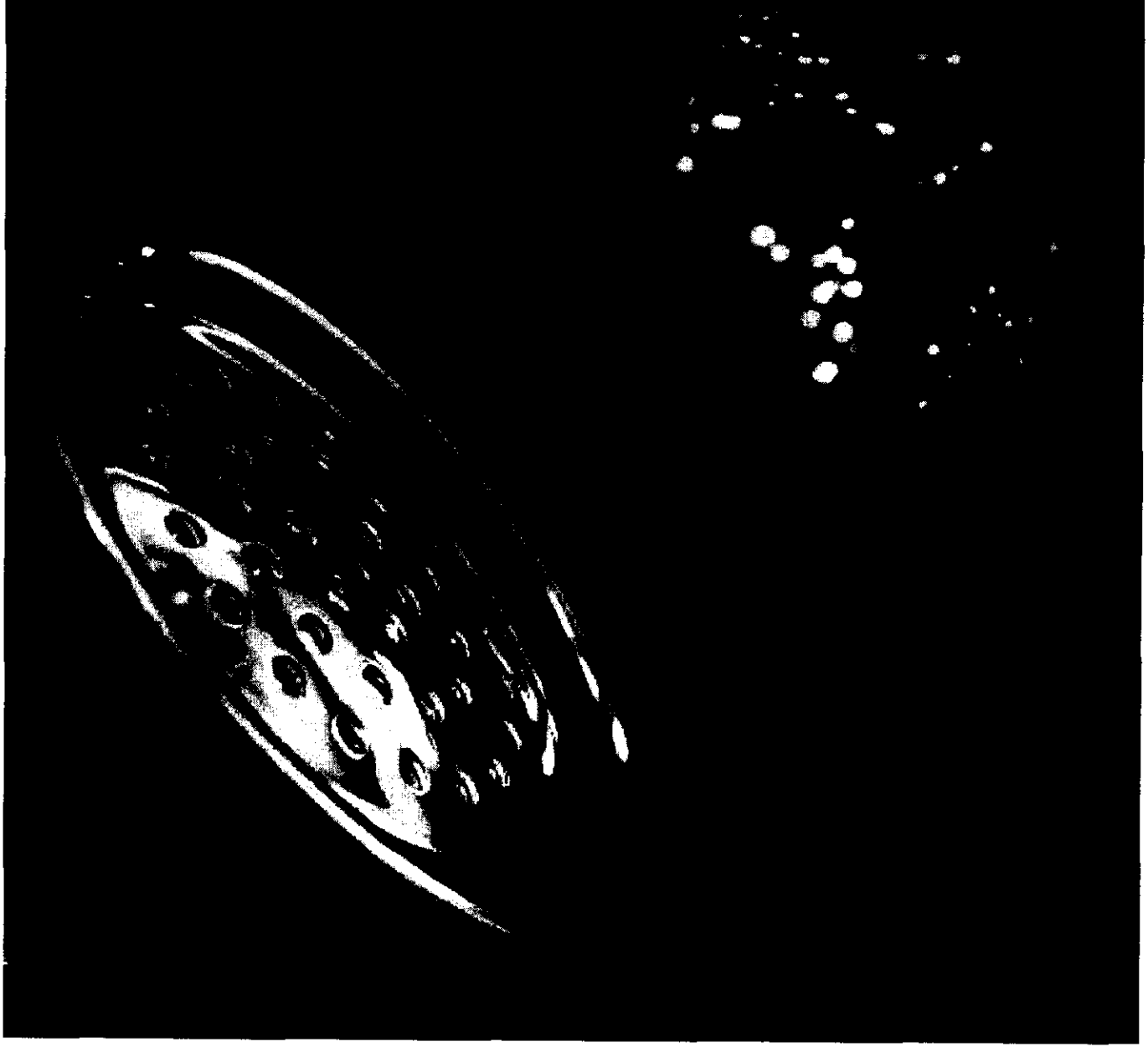
Residential High-Speed Internet Subscribers in MTUs



Source: The Strategis Group

As residents of MTUs demand faster always-on Internet connections, analysts predict that almost 6 million residential consumers will subscribe to such services by 2005. Analysts further predict that, in 2003, DSL will surpass cable as the preferred high-speed service of MTU residents.

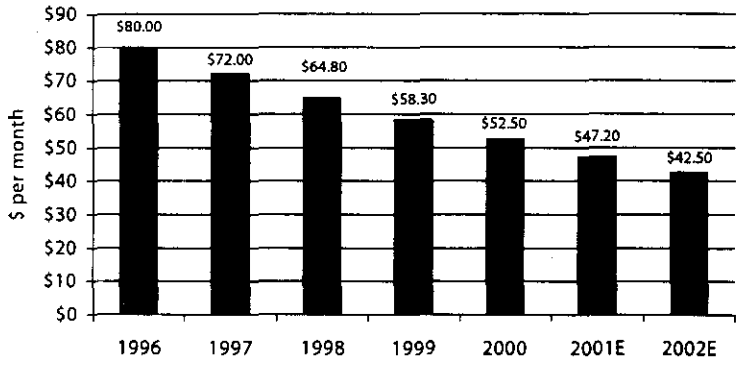
The CLEC Industry:
Internet, Broadband & DSL



The Association for Local Telecommunications Services

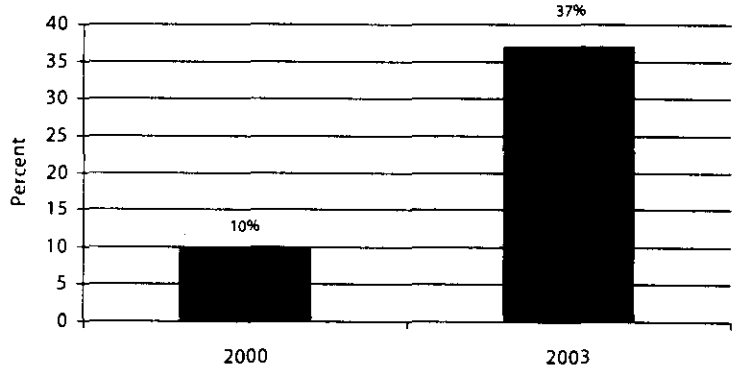
Companies Building Digital Futures...

Residential Broadband Pricing



Source: NxGen Data Research

U.S. Households Subscribing to Broadband



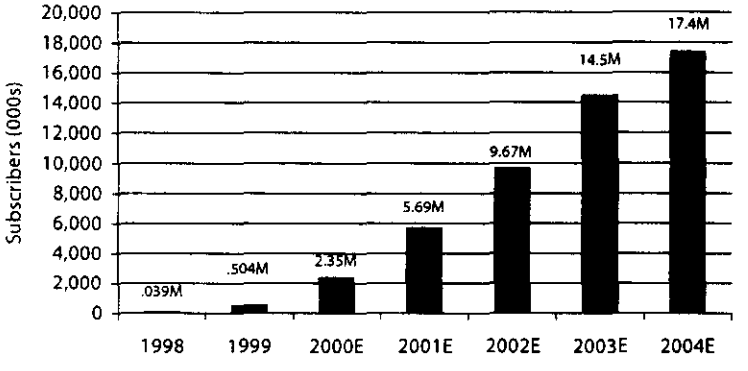
Source: Cisco

As a result of the tremendous competition in broadband markets, the price of residential broadband access is expected to drop by almost 50% between 1996 and 2002. Without the Act and the emergence of CLECs, it is likely that access to high-speed DSL services would not be available to millions of consumers. In 1999, the Council of Economic Advisers noted that "the incumbent's decision finally to offer DSL service followed closely the emergence of competitive pressures from... the entry of new direct competitors..."

With broadband service now available to over half of the nation's consumers, analysts predict that almost 40% of U.S. households will subscribe to broadband services in 2003. As consumers adopt more advanced Internet applications which require greater bandwidth, carriers will rush to meet the insatiable demand for high-speed connectivity.

Companies Building Digital Futures...

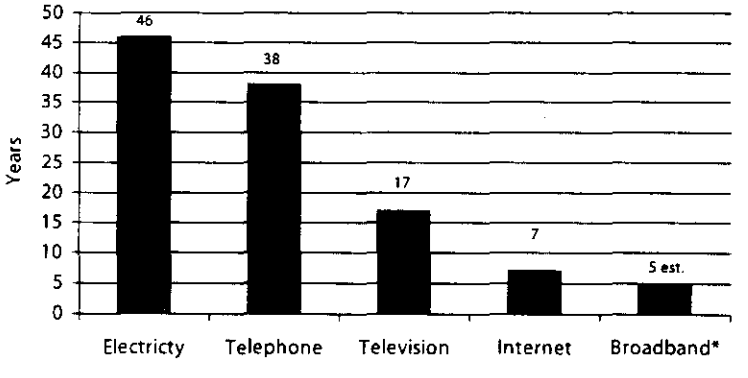
Projected DSL Line Growth



Source: TeleChoice, Cisco

Starting from just 39,000 subscribers in 1998, the DSL market exploded to almost 2.5 million subscribers at year-end 2000. Analysts expect triple-digit growth rates to continue through 2001 and slow to double-digit rates through 2004. DSL is expected to become the preferred technology of choice over cable modem service due to the dedicated nature of the connection and the faster upload speeds.

Years To Achieve 30% Penetration



Note: (*) includes all broadband access (e.g., DSL, cable, etc.)

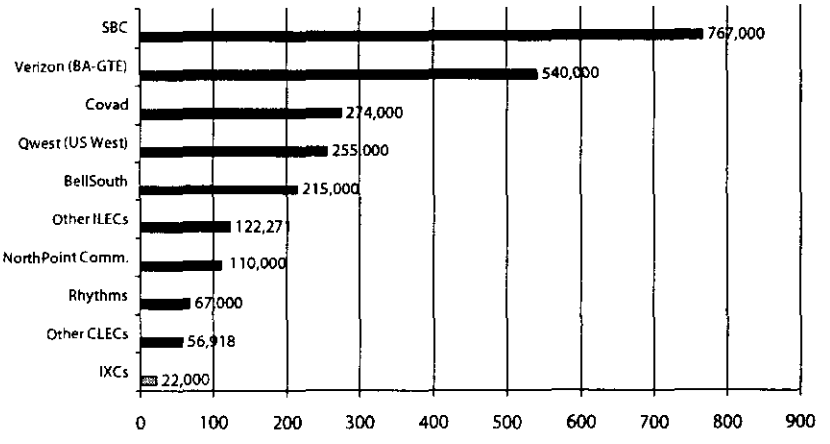
Source: TeleChoice, Cisco, ALTS

As the country and world move at an increasingly faster pace, so has the adoption of new technologies. It took the United States almost 50 years to achieve 30% penetration for electric service, almost 40 years for telephone service and almost 20 years for television. On the other hand, it has taken only 7 years to achieve such penetration for the Internet and it is estimated that broadband service will achieve a 30% penetration rate in only five years.

Companies Building Digital Futures...

State of DSL Competition

4Q00 DSL Subscriber Lines



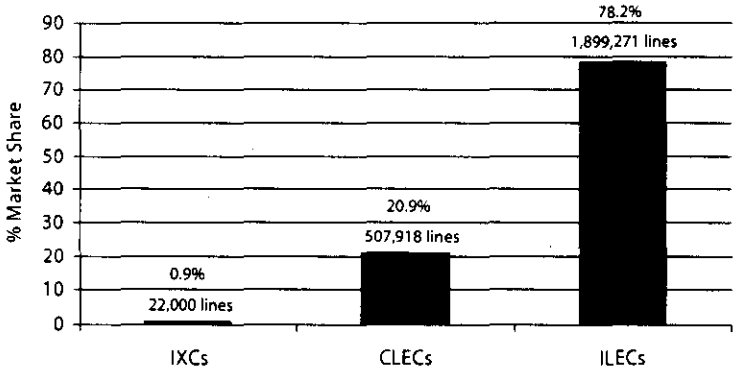
Note: NorthPoint Communications data represents ALTS estimate.

Source: Company Reports; TeleChoice

Total DSL Lines in Service = 2,429,189

DSL Market Share

4Q00 DSL Subscriber Lines



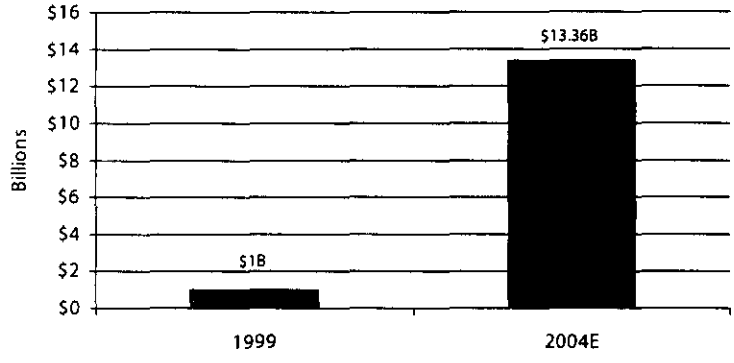
Source: TeleChoice

Through continued mergers, the Bell Companies have greatly increased individual RBOC DSL line counts. SBC (Ameritech, Pac Bell, Nevada Bell, SNET, SWBT), now serves almost 800,000 DSL customers while Verizon (Bell Atlantic, GTE, NYNEX) serves over 500,000 subscribers. Covad, the leading data CLEC (DLEC) ranks third in DSL subscribers with 274,000 as of 4Q00. Covad, NorthPoint Communications and Rhythms are all ALTS members. The recent souring of DLEC equities and the prospects for diminished competition has emboldened some of the Bell Companies, such as SBC to raise its monthly residential DSL rate to $50.

As of the 4Q00, CLECs held 21% of the DSL market, down from 23% as of the 3Q00. The incumbents hold the lion's share of the market with over 78% of DSL subscribers while the long distance companies (IXCs) hold just under 1% of the DSL market.

Companies Building Digital Futures...

Residential Broadband Revenues

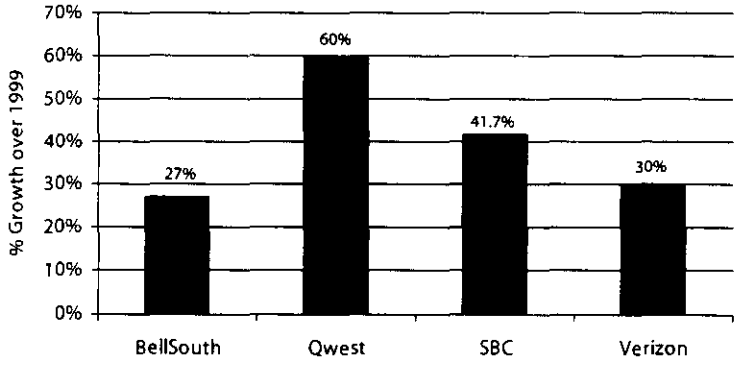


Source: Cahners In-Stat Group

With residences continuing to migrate from dial-up Internet access to broadband, analysts predict an explosion in residential broadband revenues. From only $1 billion in 1999, residential broadband revenues will exceed $13 billion in 2004. This trend represents the increasing reliance Internet users will have on broadband. Within two years, analysts expect a majority of time spent on-line will be over broadband connections as opposed to dial-up connections.

RBOC Data Revenue Growth

Growth Between 1999 & 2000

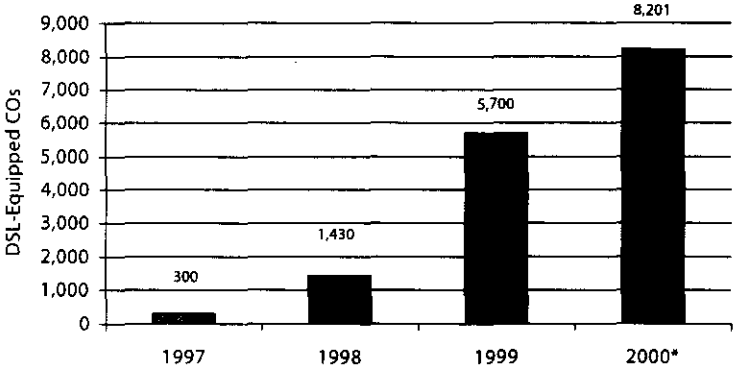


Source: Company Reports

A persistent argument made by the Bell Companies is that they lack the ability to successfully enter the broadband market due to interLATA restrictions. However, in the last year, each of the four RBOCs saw data revenue growth in excess of 25%. The revenue potential in the data market is enormous with analysts noting that the volume of data traffic now exceeds the volume of voice traffic.

Companies Building Digital Futures...

Data CLEC Central Office (CO) Collocations

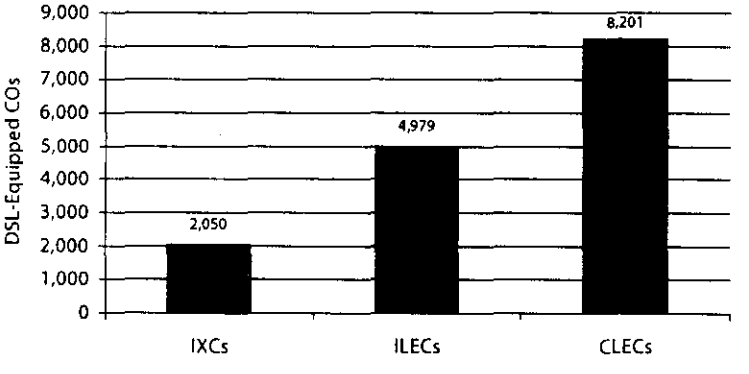


Note(s): (*) 2000 data through 3Q00; data represents pieces of equipment collocated in CO

Source: Company Reports; ALTS; CSFB; TeleChoice

DSL-Equipped Central Offices (COs)

3Q00



Note(s): Data represents pieces of equipment collocated in CO

Source: TeleChoice

Data CLECs specialize in deploying equipment in ILEC central offices that channel enormous amounts of data over the telephone companies' copper wires. From just over 200 central office collocations in 1997, CLECs have now placed over 8,000 pieces of equipment in ILEC central offices. As of the 3Q00, DLECs, with their national deployment plans, led the way in central office collocations.

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